

REMARKS

Favorable reconsideration is respectfully requested.

The claims are 5 to 10.

Claims 5 to 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takemura et al. (U.S. 5,759,739) in view of Yoshimoto et al. (EP 0 540 032 A1) and Suwa et al. (U.S. 6,187,504 B1).

This rejection is respectfully traversed.

The present invention in claims 5 to 9 is directed to a positive-working chemical-amplification photoresist composition consisting essentially of components (A)-(E).

New claim 10 is directed to a composition consisting of the recited components.

With regard to the presently recited component (A), it may be equivalent to the dissolution inhibitor (C) of Takemura (e.g. claim 1) when the subscript z is zero, however the composition of Takemura e.g. claim 1 contains as an essential component, component (B), which is a polyhydroxystyrene with partial substitution of acid unstable groups for the hydroxyl groups resulting in a binary copolymer. Such essential component (B) in Takemura is not included in the components claimed in amended claim 5 and is excluded by the present "consists essentially of" format.

The rejection takes the position that such essential component (B) of Takemura does not materially affect the basic and novel characteristics of the presently claimed invention and would not be excluded by the term "consisting essentially of".

In reply, it is clear that solubility reducing component (B) serves an important function in Takemura i.e. it is not optional. See col. 5, lines 30 to 65. If included in the present composition, especially, in the amount suggested by Takemura e.g. 55% or more, it would be expected to alter solubility which is a function of present component (A) and thus alters the basic and novel characteristics of the present claims.

Further, new claim 10 which is in "consisting" format is further unobvious since component (B) of Takemura is unequivocally excluded.

With regard to Suwa, its teaching of amine compounds (Component D) and Yoshimoto's teaching of phosphorous compounds (Component E) does not overcome the above-discussed deficiencies of Takemura.

In view of the differences between Suwa's composition and Takemura's, there is no reason to expect that adding a Lewis base such as an amine, as suggested by Suwa in column 28 would also have similar effects in the very different composition of Takemura.

Nor would there be any reason to expect that the phosphorous derivatives of Yoshimoto would enhance the very different compositions of Takemura, keeping in mind that Yoshimoto requires quinonediazides, phenylenediamine compounds, etc. Further, there would be no reason to select the amine of Suwa since Yoshimoto also discloses amines such as phenylenediamine.

Indeed, the rejection appears to be based on an improper hindsight reconstruction of the present invention based on Applicants' disclosure.

Further, in terms of performance, it is apparent from the examples of the present specification, that the resolution achieved by the photoresist compositions of the present invention are about 0.18 μm line width. See Examples 1 to 6.

On the other hand, the line width of the Examples of Takemura are about 0.25 μm or more, similar to the comparative examples of the present specification.

Such unexpected properties are neither disclosed nor suggested by the cited references, alone or in combination.

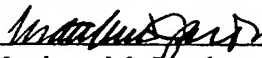
No further issues remaining, allowance of this application is respectfully requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact undersigned at the telephone number below.

Respectfully submitted,

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